



Re: Fw: Libby Asbestos Trout Pilot Study Protocol  
karen\_nelson  
to:  
Christina Progeess  
05/04/2011 01:41 PM  
Hide Details  
From: karen\_nelson@fws.gov

To: Christina Progeess/R8/USEPA/US@EPA

History: This message has been forwarded.

3 Attachments



graycol.gif pic17035.gif ecblank.gif

Christina,

I read the subject document. I was glad to see behavioral monitoring included, and I hope that will remain a component of the full blown toxicity test. I also wondered if they had a mortality during the pilot, which I suspect will be unlikely, if it was worth preserving the fish, or perhaps investigating cause of death. The answers may provide insight on what we should be on the lookout for during the real test, or may point out a design issue we can correct. Just a thought. Thanks for sharing and I look forward to meeting you in person in a few weeks.

Karen

\*\*\*\*\*

Karen J. Nelson  
U.S. Fish and Wildlife Service  
Environmental Contaminants Program  
585 Shepard Way  
Helena, MT 59601

Phone 406.449.5225 Ext. 210

Fax 406.449.5339  
karen\_nelson@fws.gov

Progress.Christina@epamail.epa.gov

Progress.Christina@epamail.epa.gov

04/29/2011 09:23 AM

ToWall.Dan@epamail.epa.gov,  
Karen\_Nelson@fws.gov,  
Charters.DavidW@epamail.epa.gov,  
Richard\_Henry@fws.gov, RMcNeil@mt.gov  
cc"Scusa, Larry" <LScusa@mt.gov>  
SubjectFw: Libby Asbestos Trout Pilot Study  
Protocol

Hi Everyone,

Attached below is the pilot fish tox test protocol. Please review and provide your comments to me by next Thursday (5/5/11). Thanks.

Christina Progress  
EPA Superfund Project Manager  
Tel: (303) 312-6009  
Fax: (303) 312-7151  
progress.christina@epa.gov

----- Forwarded by Christina Progress/R8/USEPA/US on 04/29/2011 09:18 AM  
-----

From: "Cardwell, Allison" <Allison.Cardwell@oregonstate.edu>  
To: Christina Progress/R8/USEPA/US@EPA  
Cc: "Stubblefield, William" <Bill.Stubblefield@oregonstate.edu>,  
"Robert.R.Marriam@grace.com" <Robert.R.Marriam@grace.com>,  
"robert.j.medler@grace.com" <robert.j.medler@grace.com>,  
"Robinson, Sue" <SCRobinson@golder.com>,  
"djfort@fortlabs.com" <djfort@fortlabs.com>, "Brattin, Bill"  
<brattin@srcinc.com>, Bonita Lavelle/R8/USEPA/US@EPA  
Date: 04/28/2011 08:19 PM  
Subject: Libby Asbestos Trout Pilot Study Protocol

Please find attached the draft final protocol for the Libby Asbestos Rainbow Trout Pilot Study. Please review and provide any comments or questions to either myself or Bill Stubblefield.

Regards,

Allison  
Allison Cardwell  
Faculty Research Assistant  
Oregon State University Aquatic Toxicology Lab  
33972 Texas St. SW  
Albany, Oregon 97321 U.S.A.  
1-541-926-1254  
allison.cardwell@oregonstate.edu

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RE: Libby Asbestos Trout Pilot Study Protocol  
Brattin, Bill to: Christina Prograss

05/04/2011 01:55 PM

History: This message has been forwarded.

1 attachment



OSUAquaTox\_LA RBT Pilot Protocol\_v3 SRC Comments.pdf

Christina

Here are my comments on the fish pilot study design.  
The table you asked me about is fine. It is designed to achieve optimal  
filter loading for each concentration.

\*\*\*\*\*

Bill Brattin  
SRC, Inc.  
999 18th Street Suite 1975  
Denver CO 80202  
Phone: 303-357-3121  
Fax: 303-292-4755  
e-mail: brattin@srcinc.com

-----Original Message-----

From: Prograss.Christina@epamail.epa.gov [  
mailto:Prograss.Christina@epamail.epa.gov]  
Sent: Friday, April 29, 2011 10:03 AM  
To: Lynne Woodbury; Brattin, Bill; Wall.Dan@epamail.epa.gov  
Cc: Cook, Thomas; courtney.zamora@dot.gov  
Subject: Fw: Libby Asbestos Trout Pilot Study Protocol

Hi Lynn,

Attached to the email below is the draft pilot fish tox protocol. I've sent  
this to the BTAG and Bill Brattin has a copy as well. Please review it and  
get me any comments you have by next Thursday.

I spoke with Bob Medler this morning, he will have Kyeong analyze the 50 ml  
samples that are able to be analyzed rather than the 10 ml samples, as you and  
I discussed yesterday. In the event that the 50 ml sample at a given sampling  
location is unable to be analyzed, Kyeong will run the 10 ml sample instead.

Bob Medler is checking on the question Dan had regarding the ability of the  
plastic vials with the screw tops to be sealed and autoclaved with water in  
them without exploding in the autoclave. If this isn't a concern, I told him  
to order these rather than waiting for the glass ampoules which are on back  
order until June.

Christina Prograss  
EPA Superfund Project Manager  
Tel: (303) 312-6009  
Fax: (303) 312-7151  
prograss.christina@epa.gov

----- Forwarded by Christina Progross/R8/USEPA/US on 04/29/2011 09:54 AM -----

From: "Cardwell, Allison" <Allison.Cardwell@oregonstate.edu>  
To: Christina Progross/R8/USEPA/US@EPA  
Cc: "Stubblefield, William" <Bill.Stubblefield@oregonstate.edu>, "Robert.R.Marriam@grace.com" <Robert.R.Marriam@grace.com>, "robert.j.medler@grace.com" <robert.j.medler@grace.com>, "Robinson, Sue" <SCRobinson@golder.com>, "djfort@fortlabs.com" <djfort@fortlabs.com>, "Brattin, Bill" <brattin@srcinc.com>, Bonita Lavelle/R8/USEPA/US@EPA  
Date: 04/28/2011 08:19 PM  
Subject: Libby Asbestos Trout Pilot Study Protocol

Please find attached the draft final protocol for the Libby Asbestos Rainbow Trout Pilot Study. Please review and provide any comments or questions to either myself or Bill Stubblefield.

Regards,

Allison  
Allison Cardwell  
Faculty Research Assistant  
Oregon State University Aquatic Toxicology Lab  
33972 Texas St. SW  
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OU3 SW pilot study protocol

Woodbury, Lynn

to:

Christina Progeess

05/05/2011 01:58 PM

Cc:

"Cook, Thomas", "courtney.zamora@dot.gov"

Hide Details

From: "Woodbury, Lynn" <woodburyl@cdm.com>

To: Christina Progeess/R8/USEPA/US@EPA

Cc: "Cook, Thomas" <CookTE@cdm.com>, "courtney.zamora@dot.gov" <courtney.zamora@dot.gov>

# 1 Attachment



OSUAquaTox\_LA RBT Pilot Protocol\_v3\_LCW.pdf

Christina –

My comments on the OU3 SW pilot study protocol are attached. Since I only had a PDF of the protocol, my comments are provided in electronic sticky notes and markups in the PDF. I tried to limit my comments to the “big ticket items” (i.e., I didn’t include most of my editorial comments). The biggest issue I had with the document is that the test design is unclear... the design should clearly state 1) the number of samples that will be collected each day (i.e., 2 samples \* 3 replicates per nominal level \* 5 nominal levels = 30 samples per test day), and 2) that for each pair of samples collected, one sample will be analyzed for total and the other will be analyzed for free. I also added a suggested sample identification procedure that uses a “self-reading” ID per our earlier discussions.

By the way, I checked the filter volumes shown in the table on page 6 of the protocol and they are okay as shown. Basically, the goal is to dilute the concentration for the syringe filter samples so that the concentration is about 0.1 BFL to avoid filter overloading. I’ve recommended that the text be modified to better describe this. We (me? Bill?) may need to modify the FSDS form for these samples to accommodate the recording of the sample volume, dilution volume, and filter volume.

Re: the video-taping Dan suggested... I think that not video-taping is probably okay for the pilot study, but we may want to do this in the real study to allow for the recording of behavior outside of the sampling collection/feeding period.

Please let me know if you have any questions on my suggested changes,  
Lynn

+++++

Lynn Woodbury  
CDM  
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Email: woodburyl@cdm.com



**Re: Fw: Libby Asbestos Trout Pilot Study Protocol**

Davidw Charters to: Christina Progross

Cc: Dan Wall, Karen\_Nelson, "Scusa, Larry", Richard\_Henry, RMcNeil

05/04/2011 03:08 PM

History: This message has been forwarded.

A few very minor comments:

1.2 experimental approach.

....removal of fibers from the water column due to clumping and binding process. I would suggest including settling of fibers the square aquaria will have dead spots I suggest that it be included.

1.3 please eliminate the word exposure. The Data Quality Objective is strictly a concentration question the fish are there to replicate conditions when an exposure study is conducted. this is not an exposure study.

2.1 Basis

Same comment please include "settling of fibers".

2.2 Test Organism

the plan makes a case that the trout are not to be analyzed in the test. I assume that the fish are being included to replicate the conditions in the final test procedures, please clarify. Hence I would not discuss exposure concentrations, but rather test concentration or pilot concentrations. The study is assessing if we can keep the fibers up in the system, not yet are the fibers toxic. I am concerned that if the fibers stay up in the water column this test will be used as a decision study despite the statements to the contrary.

2.3 Change "test diet" to "fish diet"

As the fish are not being tested I am not sure the rationale to analyze the fish food.

4.1 Test concentration/dosages recommend the removal of "dosages" The objective is not to dose the fish but to establish if the materials can be kept suspended.

4.2 Number of test organisms.

suggest eliminating "test". No number of fish will be "tested" Suggest: A total of 15 fish will be placed in each aquaria tested.

4.6 Biological monitoring

Any mortality will be recorded once daily and dead fish will *then* (?) be removed immediately.

Will the fish be replaced? as this is not a toxicity test, replacement will eliminate a potential variation in each tank e.g., one tank might have 15 fish at the end of the five days and one might have none. I suggest replacing fish for this pilot.

4.7.1 filtration of Water samples

The location of the samples within the aquaria should be noted, middle of tank ? mid depth ? The SOP does not specifically address where the sample is to be taken rather the process for taking the sample including the specifics as to location of the sample in the aquaria would meet requirements.

5.0 Data Analysis



If you are not going to analyze the biological data why are you collecting it? Is it to evaluate the "mixing" impact of the fish e.g, if the fish are dead or not swimming they do not assist in moving the water and keeping the fibers in suspension.

Questions give me a call.

Christina Prograss

Hi Everyone, Attached below is the pilot fish tox...

04/29/2011 11:23:20 AM

From: Christina Prograss/R8/USEPA/US  
To: Dan Wall/R8/USEPA/US@EPA, Karen\_Nelson@fws.gov, Davidw  
Charters/ERT/R2/USEPA/US@EPA, Richard\_Henry@fws.gov, RMcNeil@mt.gov  
Cc: "Scusa, Larry" <LScusa@mt.gov>  
Date: 04/29/2011 11:23 AM  
Subject: Fw: Libby Asbestos Trout Pilot Study Protocol

---

Hi Everyone,

Attached below is the pilot fish tox test protocol. Please review and provide your comments to me by next Thursday (5/5/11). Thanks.

Christina Prograss

EPA Superfund Project Manager

Tel: (303) 312-6009

Fax: (303) 312-7151

prograss.christina@epa.gov

----- Forwarded by Christina Prograss/R8/USEPA/US on 04/29/2011 09:18 AM -----

From: "Cardwell, Allison" <Allison.Cardwell@oregonstate.edu>  
To: Christina Prograss/R8/USEPA/US@EPA  
Cc: "Stubblefield, William" <Bill.Stubblefield@oregonstate.edu>, "Robert.R.Marriam@grace.com" <Robert.R.Marriam@grace.com>, "robert.j.medler@grace.com" <robert.j.medler@grace.com>, "Robinson, Sue" <SCRobinson@golder.com>, "djfort@fortlabs.com" <djfort@fortlabs.com>, "Brattin, Bill" <brattin@srcinc.com>, Bonita Lavelle/R8/USEPA/US@EPA  
Date: 04/28/2011 08:19 PM  
Subject: Libby Asbestos Trout Pilot Study Protocol

---

Please find attached the draft final protocol for the Libby Asbestos Rainbow Trout Pilot Study. Please review and provide any comments or questions to either myself or Bill Stubblefield.

Regards,

Allison  
Allison Cardwell  
Faculty Research Assistant  
Oregon State University Aquatic Toxicology Lab  
33972 Texas St. SW  
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addressee or it appears from the context or otherwise that you have received this e-mail in error, please advise me immediately by reply e-mail, keep the contents confidential, and immediately delete the message and any attachments from your system. [attachment "OSUAquaTox\_LA RBT Pilot Protocol\_v3.pdf" deleted by Davidw Charters/ERT/R2/USEPA/US]



Comments to Fish Tox Documents

Lenkauskas, Michael

to:

Christina Progeess

05/04/2011 07:48 PM

Cc:

"Vonnahme, Timothy"

Hide Details

From: "Lenkauskas, Michael" <Michael.Lenkauskas@shawgrp.com>

To: Christina Progeess/R8/USEPA/US@EPA

Cc: "Vonnahme, Timothy" <TimothyL.Vonnahme@shawgrp.com>

History: This message has been forwarded.

Christina,

The following are my comments to the documents provided; fish study protocol, Libby OU3 Modification 1 to ISO 10312 Method Analysis of Water Samples for Asbestos by TEM (Rev. 1 5/21/2009), and OU3 SOP 3A:

#### OSU Fish Protocol

- Section 2.3 Test Diet – Should the trout chow be analyzed for asbestos by PLM prior to use?
- Section 3.2 of the previous draft stated that “laboratory water obtained from an on-site well mixed with water which has undergone reverse-osmosis.” Will this source still be used and if so will it be analyzed for asbestos prior to use?

#### Libby OU3 Modification to ISO 10312 Method Analysis of Water Samples for Asbestos by TEM

- Sections 3.0 and 6.0 describe the filtration of samples through a Mixed Cellulose Ester (MCE) filter with 0.2 µm pore size, which is not consistent with the use polycarbonate (PC) filters with 0.2 µm pore size described in sections 4.2 and 4.2.2 of OU3 SOP 3A.

#### OU3 SOP 3A – Water Sampling with Syringe Filters

- Sections 4.2 and 4.2.2 of SOP 3A describes the use of 25 mm PC filters with **0.2** µm pore size; however, Section 4.2.3 describes the use of 25 mm PC filters with **0.1** µm pore size

- The FSDS provided as Attachment B of SOP 3A does not include documentation of the filter size and filter lot number.
- Will a representative filter from each filter lot used be analyzed for asbestos by TEM prior to use?

Misc

- Concerning the type filter to be used to filter aqueous samples for TEM analysis, the Chatfield method provided in Attachment A specifies the use of PC filters.

I'm currently on travel, but can be reached on my cell phone if you have any questions.

Thanks,

**Michael P. Lenkauskas**

Chemist, Quality Assurance Technical Support

Shaw Environmental

20 George Street

Cambridge, MA 02140

619.768.3602 Cell

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